

LIST OF CLAIMS / AMENDMENTS

In the Claims

Claims 15-27 and 34-45 were previously canceled.

Please amend claims 1-14 and 28 as shown herein.

Claims 1-14 and 28-33 are pending and are listed following:

1. (currently amended) ~~A test system~~ An interface device for testing an in-test host's support of USB peripherals, ~~the test system~~ the interface device comprising:

one or more USB interfaces configured to communicate with one or more USB ports of the in-test host to communicate USB messages with the in-test host;

a network interface configured to communicate with a peripheral emulator using a network communications protocol;

operating logic configured to perform actions comprising:

receiving USB command messages sent from the in-test host to the interface device;

sending the received USB command messages from the interface device to the peripheral emulator through the network interface using the network communications protocol; and

receiving USB response messages sent from the peripheral emulator to the interface device through the network interface using the network communications protocol;

sending the received USB response messages from the interface device through the one or more USB interfaces to the in-test host.

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2 **2. (currently amended)** ~~A test system~~ An interface device as
3 recited in claim 1, further comprising the peripheral emulator, wherein the
4 peripheral emulator is programmed to emulate one or more USB peripherals.

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6 **3. (currently amended)** ~~A test system~~ An interface device as
7 recited in claim 1, further comprising the peripheral emulator, wherein the
8 peripheral emulator is programmed to emulate HID, bulk, and isochronous USB
9 peripherals.

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11 **4. (currently amended)** ~~A test system~~ An interface device as
12 recited in claim 1, further comprising the peripheral emulator, wherein the
13 peripheral emulator comprises a general-purpose computer programmed to
14 emulate one or more USB peripherals.

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16 **5. (currently amended)** ~~A test system~~ An interface device as
17 recited in claim 1, further comprising the peripheral emulator, wherein the
18 peripheral emulator comprises a general-purpose computer programmed to
19 emulate HID, bulk, and isochronous USB peripherals.
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1 6. (currently amended) ~~A test system~~ An interface device as
2 recited in claim 1, further comprising the peripheral emulator, wherein:
3 the peripheral emulator comprises a general-purpose computer;
4 the general-purpose computer is programmed to emulate one or more USB
5 peripherals; and
6 the general-purpose computer is further programmed to generate USB
7 response messages that test the in-test host with ranges of USB peripheral
8 parameters.

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10 7. (currently amended) ~~A test system~~ An interface device as
11 recited in claim 1, further comprising the peripheral emulator, wherein:
12 the peripheral emulator comprises a general-purpose computer;
13 the general-purpose computer is programmed to emulate one or more USB
14 peripherals; and
15 the general-purpose computer is further programmed to generate abnormal
16 USB response messages in order to test the in-test host with such abnormal USB
17 response messages.

1 **8. (currently amended)** ~~A test system~~ An interface device as
2 recited in claim 1, wherein:
3 a particular USB command message is designated for a particular one of a
4 plurality of different emulated peripheral devices;
5 the network communications protocol supports a plurality of logical ports;
6 the operating logic maintains a correspondence between emulated
7 peripheral devices and logical ports; and
8 the operating logic sends said particular USB command message to one of
9 the logical ports that corresponds to said particular one of the plurality of different
10 emulated peripheral devices.

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12 **9. (currently amended)** ~~A test system~~ An interface device as
13 recited in claim 1, wherein the one or more USB interfaces comprise at least four
14 USB interfaces.

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16 **10. (currently amended)** ~~A test system~~ An interface device as
17 recited in claim 1, wherein the USB messages comprise HID, bulk, and
18 isochronous USB messages.

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20 **11. (currently amended)** ~~A test system~~ An interface device as
21 recited in claim 1, wherein the network interface comprises an Ethernet interface.
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1 **12. (currently amended)** ~~A test system~~ An interface device as
2 recited in claim 1, wherein the network communications protocol comprises an
3 Ethernet communications protocol.
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5 **13. (currently amended)** ~~A test system~~ An interface device as
6 recited in claim 1, wherein the network communications protocol comprises an IP
7 protocol.
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9 **14. (currently amended)** ~~A test system~~ An interface device as
10 recited in claim 1, wherein the network communications protocol comprises UDP
11 over IP.
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13 **15-27. (canceled)**
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1 **28. (currently amended)** A method of testing an in-test host's
2 support of USB peripherals, comprising:
3 receiving USB command messages from the in-test host at an interface
4 device;
5 packaging the received USB command messages in command data packets
6 formatted in accordance with a network communications protocol;
7 sending the command data packets from the interface device to one or more
8 peripheral emulators over network communications media;
9 receiving response data packets from the one or more peripheral emulators
10 over the network communications media at the interface device, wherein the
11 response data packets are formatted in accordance with a network communications
12 protocol;
13 unpackaging USB response messages from the received response data
14 packets;
15 sending the unpackaged, USB response messages from the interface device
16 to the in-test host.

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18 **29. (original)** A method as recited in claim 28, further comprising
19 emulating one or more different USB peripherals within the one or more
20 peripheral emulators to create the incoming USB messages.
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1 **30. (original)** A method as recited in claim 28, further comprising
2 creating abnormal USB response messages in response to the packaged USB
3 command messages and packaging said abnormal USB response messages in the
4 response data packets in order to test the in-test host's ability to handle such
5 abnormal USB response messages.

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7 **31. (original)** A method as recited in claim 28, wherein the network
8 communications protocol comprises an Ethernet communications protocol.

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10 **32. (original)** A method as recited in claim 28, wherein the network
11 communications protocol comprises an IP protocol.

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13 **33. (original)** A method as recited in claim 28, wherein the network
14 communications protocol comprises UDP over IP.

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16 **34-44. (canceled)**
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